

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-17 (Canceled).

Claim 18 (Currently Amended): A method of damping oscillating modes of an infinitely variable transmission with electric variator, including a heat engine and at least two electric machines of a vehicle, comprising:

~~wherein a torque instruction of the electric machines is a sum of~~ calculating a main instruction ~~making it possible~~ to attain setpoints for wheel torque and torque of the heat engine[[,]];

~~and of~~ calculating an instruction supplement ~~intended~~ to damp the oscillating modes brought about by stiffnesses of a kinematic chain between the heat engine and [[the]] wheels of the vehicle, the calculating the instruction supplement including adding weighted values of setpoints to weighted values of physical quantities, and the setpoints and the physical quantities are weighted according to a function of an operating point of the vehicle; and

adding the instruction supplement to the main instruction to generate a final instruction.

Claim 19 (Canceled).

Claim 20 (Currently Amended): The method of damping as claimed in claim 18, wherein the instruction supplement is composed of a first element which is a linear combination of the setpoints, and of a second element which is a linear combination of the physical quantities.

Claim 21 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of a status of the heat engine.

Claim 22 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of a speed of the wheels.

Claim 23 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of a status of the electric machines.

Claim 24 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of engine torque exchanged between the engine and a box.

Claim 25 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of torque at the wheels.

Claim 26 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of frictional torque of the heat engine.

Claim 27 (Currently Amended): The method of damping as claimed in claim 20, wherein the second element ~~integrates~~ includes an estimate of frictional torque at the ~~wheel~~ wheels.

Claim 28 (Currently Amended): A device for supervising a transmission ~~ensuring of~~
a vehicle to ensure regulation of torque at wheels and of thermal status of an infinitely
variable transmission with electric variator, comprising:

a heat engine;

at least two electric machines; [[and]]

a mechanical decoupling unit positioned between the heat engine and the electric
machines, and the mechanical decoupling unit calculates a main instruction to attain setpoints
of the electric machines; and

a ~~unit for~~ damping unit for the torsional modes, which calculates an instruction
supplement ~~intended to damp~~ that is added to the main instruction, the instruction supplement
damping oscillating modes brought about by stiffnesses of a kinematic chain between the
heat engine and the wheels, and the damping unit for the torsional modes calculates the
instruction supplement by adding weighted values of setpoints to weighted values of physical
quantities, and the setpoints and the physical quantities are weighted according to a function
of an operating point of the vehicle.

Claim 29 (Canceled).

Claim 30 (Currently Amended): The supervising device as claimed in claim [[29]]
28, wherein the mechanical decoupling unit receives two instructions calculated in a
mechanical regulating unit for mechanical regulation based on setpoints and estimates of a
status of the heat engine and of the torque at the wheels.

Claim 31 (Currently Amended): The supervising device as claimed in claim [[29]] 30, further comprising a mechanical determination unit affording estimation of an engine status, and of the torque at the wheels.

Claim 32 (Currently Amended): The supervising device as claimed in claim [[29]] 31, wherein the mechanical determination unit establishes an estimation vector for the oscillating modes, which is intended for calculation of the instruction supplement.

Claim 33 (Previously Presented): The supervising device as claimed in claim 32, wherein the estimation vector for the oscillating modes is transmitted to the mechanical decoupling unit and to the damping unit for the torsional modes.

Claim 34 (Previously Presented): The supervising device as claimed in claim 31, wherein the mechanical determination unit, the mechanical regulating unit, the mechanical decoupling unit, and the damping unit for the torsional modes, are grouped together in a mechanical supervising unit affording regulation of the torque at the wheels and status of the heat engine.

Claim 35 (New): The method of damping as claimed in claim 18, wherein each of the setpoints and the physical quantities are weighted with a different coefficient calculated based on the operating point of the vehicle.

Claim 36 (New): The supervising device as claimed in claim 28, wherein the damping unit for the torsional modes weights each of the setpoints and the physical quantities with a different coefficient calculated based on the operating point of the vehicle.